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APPLICANT : FURUKAWA ALUM CO LTD;

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TITLE : HIGH STRENGTH ALUMINUM BRAZING SHEET

ABSTRACT : PURPOSE: To improve the strength and corrosion resistance of a brazing sheet and to reduce the diffusion of a brazing filler metal by specifying the compsn. of an Al alloy core material and the density of intermetallic compounds having specified grain size.

CONSTITUTION: In this Al brazing sheet, an Al alloy constituted of, by weight, 0.05 to 0.80% Si, 0.05 to 0.6% Fe, 0.1 to 1.0% Cu, 0.6 to 1.6% Mn, 0.05 to 0.5% Mg and the balance Al and contg. intermetallic compounds having 0.02 to 0.2 μ grain size by 20 to 2000 pieces/ μ^2 in number density is used as a core material. Then, it is constituted in such a manner that the face on the side in contact with a refrigerant of the core material is clad with an Al alloy electrochemically baser than the core material and the other face is clad with an Al-Si series alloy. Si promotes the precipitation of Mn, increases intermetallic compounds, improves its strength and has age hardening after brazing together with Mg. Fe forms intermetallic compounds together with Mn to improve its strength, Cu improves its strength and corrosion resistance and Mn is essential for distributing intermetallic compounds into the alloy. The number density of the intermetallic compounds improves its strength, reduces the diffusion of a brazing filler metal and improves its corrosion resistance.

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